

CLAIMS

What is claimed is:

- 1 1. A wireless mobile phone comprising:
 - 2 a transceiver to receive and send audio communication;
 - 3 an audio renderer to render audio;
 - 4 a plurality of light emitting diodes (LEDs);
 - 5 a visualization controller coupled to the LEDs to selectively activate and
 - 6 deactivate the LEDs as requested; and
 - 7 a sound visualization client coupled to the visualization controller to request
 - 8 the visualization controller to selectively activate and deactivate the LEDs in at least
 - 9 one desired manner to effectuate visualization of audio rendered by the audio
 - 10 renderer, in accordance with at least one or more attributes of the audio being
 - 11 rendered.
- 1 2. The wireless mobile phone of claim 1, wherein the attributes comprise one or
- 2 more of a volume attribute, a spectrum attribute, a treble attribute, and a bass
- 3 attribute.
- 1 3. The wireless mobile phone of claim 1, wherein the sound visualization client
- 2 is designed to receive said at least one or more attributes.

1 4. The wireless mobile phone of claim 1, wherein the sound visualization client
2 is designed to analyze said audio being rendered to determine said at least one or
3 more attributes.

1 5. The wireless mobile phone of claim 1, wherein said sound visualization client
2 requests the visualization controller to selectively activate and deactivate different
3 color ones of the LEDs in view of the at least one or more attributes of the audio
4 being rendered.

1 6. The wireless mobile phone of claim 1, wherein said sound visualization client
2 requests the visualization controller to selectively activate and deactivate the LEDs
3 to animate a selected one of a graphic analyzer, a geometric primitive, a pattern, a
4 thing, an object, a person and an animal, in view of the at least one or more
5 attributes of the audio being rendered.

1 7. The wireless mobile phone of claim 1, wherein said sound visualization client
2 requests the visualization controller to selectively activate and deactivate the LEDs
3 to depict a plurality of dance steps, in view of the at least one or more attributes of
4 the audio being rendered.

1 8. The wireless mobile phone of claim 1, wherein
2 said wireless mobile phone further comprises a processor to execute
3 programming instructions;

4 said visualizer controller comprises first programming instructions designed to
5 perform said selective activation and deactivation of selected ones of said LEDs as
6 requested; and

7 said sound visualization client comprises second programming instructions
8 designed to perform said request of the visualization controller to effectuate said
9 visualization of the audio being rendered by the audio renderer.

1 9. The wireless mobile phone of claim 8, wherein said first programming
2 instructions of said visualization controller are designed to accept a request to
3 activate/deactivate selected ones of said LEDs in at least one of a first form
4 singularly specifying one round of activation and deactivation of said LEDs, and a
5 second form simultaneously specifying a series of rounds of activations and
6 deactivations of said LEDs.

1 10. The wireless mobile phone of claim 8, wherein said wireless mobile phone
2 further comprises a first storage medium having stored therein at least said first
3 programming instructions of said visualization controller.

1 11. The wireless mobile phone of claim 10, wherein said wireless mobile phone
2 further comprises second storage medium having stored therein at least a portion of
3 said second programming instructions of said audio visualization client.

1 12. The wireless mobile phone of claim 11, wherein

2 said wireless mobile phone further comprises a body having one of at least
3 two designs, a first design where a complementary cover of the body is substitutable
4 with any one of a plurality of embodiments of said cover, and a second design where
5 said body is at least partially coverable by a selected one of a plurality of
6 embodiments of a complementary cover of the body; and
7 each of said embodiments of said cover comprises an electronic component
8 including at least said second storage medium.

1 13. The wireless mobile phone of claim 12, wherein said electronic component
2 further comprises said first storage medium.

1 14. The wireless mobile phone of claim 13, wherein the first and second storage
2 medium are the same storage medium.

1 15. The wireless mobile phone of claim 12, wherein each of said embodiments of
2 said cover comprises a front facing exterior surface, and said LEDs being disposed
3 on said front facing exterior surface.

1 16. The wireless mobile phone of claim 1, wherein said wireless mobile phone
2 further comprises a body having an exterior surface, and said LEDs being disposed
3 on said exterior surface.

1 17. The wireless mobile phone of claim 16, wherein said exterior surface is a
2 selected one of a front exterior surface, a back exterior surface, a side exterior
3 surface, a top exterior surface, and a bottom exterior surface of said body of said
4 wireless mobile phone.

1 18. The wireless mobile phone of claim 1, wherein said wireless mobile phone
2 further comprises a key pad having a plurality of keys, and said LEDs being
3 integrally disposed with said keys.

1 19. The wireless mobile phone of claim 1, wherein said LEDs comprises single
2 color LEDs of a plurality of colors, organized into groups.

1 20. The wireless mobile phone of claim 1, wherein said LEDs comprises at least
2 one multi-color LED.

1 21. The wireless mobile phone of claim 1, wherein said audio renderer comprises
2 a selected one of a radio and a MPx player.

1 22. The wireless mobile phone of claim 1, wherein the phone further comprises a
2 microphone to provide said audio to said audio renderer to render.

1 23. A wireless mobile phone comprising:
2 means for sending and receiving audio communication;

3 means for rendering sound;

4 means for emitting light;

5 visualization control means coupled to the light emitting means to selectively

6 activate and deactivate the light emitting means as requested; and

7 sound visualization client means coupled to the visualization control means to

8 request the visualization control means to selectively activate and deactivate the

9 light emitting means in a desired manner to effectuate visualization of the sound

10 being rendered by the sound rendering means, in accordance with one or more

11 attributes of the sound being rendered.

1 24. The wireless mobile phone of claim 23, wherein said sound visualization

2 client means requests the visualization control means to selectively activate and

3 deactivate different color ones of the light emitting means, in view of a volume

4 attribute of the sound being rendered.

1 25. The wireless mobile phone of claim 23, wherein said sound visualization

2 client means requests the visualization control means to selectively activate and

3 deactivate the light emitting means to animate a selected one of a graphic analyzer,

4 a geometric primitive, a pattern, a thing, an object, a person and an animal, in view

5 of the at least one or more attributes of the sound being rendered.

1 26. The wireless mobile phone of claim 23, wherein said sound visualization

2 client means requests the visualization control means to selectively activate and

3 deactivate the light emitting means to depict a plurality of dance steps, in view of the
4 at least one or more attributes of the sound being rendered.

1 27. The wireless mobile phone of claim 23, wherein the phone further comprises
2 means to provide ambient sound to said sound rendering means.

1 28. An article of manufacture comprising
2 a cover designed to at least partially cover a body of a wireless mobile phone;
3 and
4 an electronic component embedded in said cover, the electronic component
5 including storage medium having stored therein at least first programming
6 instructions implementing a sound visualization client that requests a visualization
7 controller of the wireless mobile phone to selectively activate and deactivate a
8 plurality of light emitting diodes (LEDs) of the wireless mobile phone to visualize
9 audio being rendered by an audio renderer of the wireless mobile telephone.

1 29. The wireless mobile phone of claim 28, wherein said sound visualization
2 client requests the visualization controller to selectively activate and deactivate
3 different color ones of the LEDs, in view of a volume attribute of the sound being
4 rendered.

1 30. The article of manufacture of claim 28, wherein said sound visualization client
2 requests the visualization controller to selectively activate and deactivate the LEDs

3 to animate a selected one of a graphic analyzer, a geometric primitive, a pattern, a
4 thing, an object, a person and an animal, in view of the at least one or more
5 attributes of the audio being rendered.

1 31. The article of manufacture of claim 28, wherein said sound visualization client
2 requests the visualization controller to selectively activate and deactivate the LEDs
3 to depict a plurality of dance steps, in view of the at least one or more attributes of
4 the audio being rendered.

1 32. The article of claim 28, wherein the cover is a selected one of a housing cover
2 and an accessory cover.

1 33. A method comprising:
2 monitoring audio being rendered out of a wireless mobile phone; and
3 selectively activating and deactivating a plurality of light emitting diodes
4 (LEDs) of the wireless mobile phone to visualize the audio being rendered based at
5 least in part on at least one or more attributes of the audio being rendered.

1 34. The method of claim 33, wherein said selective activating and deactivating
2 comprises selectively activating and deactivating different color ones of the light
3 emitting diodes in view of a volume attribute of the audio being rendered.

1 35. The method of claim 33, wherein said selective activating and deactivating
2 comprises selectively activating and deactivating the light emitting diodes to animate
3 a selected one of a graphic analyzer, a geometric primitive, a pattern, a thing, an
4 object, a person and an animal, in view of the at least one or more attributes of the
5 audio being rendered.

1 36. The method of claim 33, wherein said selective activating and deactivating
2 comprises selectively activating and deactivating the light emitting diodes to
3 selectively activate and deactivate the light emitting diodes to depict a plurality of
4 dance steps, in view of the at least one or more attributes of the audio being
5 rendered.